STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

May 11, 2005

MEMO TO: Don Lee, Berry Jenkins, Michael Taylor, Dan Bernhoff, Jay Bennett, Shannon Sweitzer, Judith Corley-Lay, Stuart Bourne, Jonathan Bivens, Jennifer Brandenburg, Brian Webb, John Couture, Dave Rankin and Dave Hurley

FROM: J. V. Barbour, P. E.
State Project Services Engineer

SUBJECT: AGC/Roadway Subcommittee Meeting Minutes
May 11, 2005

The subject committee met on May 11, 2005 at 10:00 a.m. in the Project Services Conference Room at the Century Center with the following in attendance:

Victor Barbour	Vladmir Mitchev	Eddie Spencer
Jay Bennett	Ellis Powell	Ralph Stout
Jonathan Bivens	Dave Rankin	Shannon Sweitzer
Dennis Jernigan	Ted Sherrod	Michael Taylor
Don Lee	Norma Smith	Brian Webb

The following items were discussed:

1. **RESPONSE FOR EROSION CONTROL**

The Department discussed the need for NCDOT *Standard Specifications* for *Section 1675 Response for Erosion Control* that pays the contractor for setting up personnel and equipment at the project site. Mr. Stout, representing small grass subcontractors discussed the issues of being called out for a specific amount of work, only to arrive at the site and have much more work to perform. Many times they are without sufficient materials when the job includes more area or work than anticipated. He also discussed leaving the jobsite and being called back to perform more work when he had gotten about 3 miles from the project site. The Committee talked about the need for providing payment for each time the subcontractor arrives and sets up at the project site. The subcontractors are called to the jobsite much more than previously called. It was decided that better communications would play a major role in making this provision successful.

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CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
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A form is being developed that will be filled in and signed jointly by the Department Inspector and the Contractor's Supervisor that will describe the work to be performed and
the materials that will be needed. After the work is completed, the Inspector and Supervisor will sign the form, indicating that the work has been completed.

The provision is to be rewritten as a performance specification. The Department will send this specification and form out for review, before implementation. The goal is to have the Project Special Provision in the July 2005 Letting. (Attachment No. 1)

2. EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION PSP

The Committee reviewed the draft Project Special Provision *for Erosion & Sediment Control/Stormwater Certification*, dated 04-13-05 and the chart showing which personnel would be required on TIP roadway, bridge and small urban, POC and Resurfacing projects. The Industry offered suggestions to clarify wording in some areas. Some clarification will be made to the provision before implementing. The Department emphasized that accountability was the main issue behind these certifications. The Department answered questions about the training and exam and explained the exam will eventually be available on line. The Department emphasized that the provision would become effective on projects let after December 31, 2005. (Attachment No. 2)

3. BORROW PIT DISCHARGE MONITORING PROCEDURES

The Committee reviewed a draft Project Special Provision for *Procedure for Monitoring Borrow Pit Discharge*, dated 03/22/05. The Industry asked questions to clarify meanings. The Industry will review and send comments to Victor as soon as possible. After comments are received, the provision will be revised and a Measurement and Payment will be added as incidental to the price of borrow. (Attachment No. 3)

4. FORCE ACCOUNT

The Department distributed surveys at the Conference and got an overwhelming response to change force account. The provisions are now under review by the Department management. Ellis hopes to have it available at the Joint Cooperative Committee meeting next week.

5. ELECTRONIC FILES

The Department passed out a listing of available Geopack and Microstation files. Since there are so many different items that contractors may request, it was decided to advertise a test project with available Geopack and Microstation files. This will give the Committee an idea of how well it would work, and which files would be needed for the contractors' use. (Attachment No. 4)

6. TRAFFIC CONTROL CONSISTENCY

The Industry commented that traffic control flagging is incidental to utility crossings and asked that it be made consistent with the other flagging uses, which is to pay for it. The Department agreed.

NEXT MEETING

The next meeting will be at 10:00 a.m. on July 13, 2005, in the Project Services Conference Room. The remaining meeting dates for 2005 are, September 14 and November 9. All meetings will be at 10:00 a.m. in the Project Services Conference Room. You may want to reserve all day for the meeting in case they run long, or there is a need to make a field trip in the afternoon.

It was suggested that the meetings be moved to the Wednesday after the bid letting instead of the Wednesday before the bid letting. The Committee will determine if that time would be better for all members and set the schedule for next year accordingly.

cc: Randy Garris, P.E.
Steve DeWitt, P.E.
Ellis Powell, P.E.
Art McMillan, P.E.
Ted Sherrod, P.E.
Jim McMellon, P.E.
Dennis Jernigan, P.E.
Don Lee
Norma Smith

Performance based version D R A F T

Attachment No. 1

SECTION 1675
RESPONSE FOR EROSION CONTROL

Revised May 17, 2005

1675-1 DESCRIPTION

Furnish the labor, materials, tools and equipment rental necessary to move personnel, equipment, and supplies to the project necessary for the pursuit of any or all of the following work as shown herein, by an approved subcontractor.

A. Seeding and Mulching
B. Temporary Seeding and Mulching
C. Temporary Mulching
D. Fertilizer Topdressing
E. Repair Seeding
F. Supplemental Seeding
G. Silt Fence Installation or Repair
H. Installation of Matting for Erosion Control

1675-2 CONSTRUCTION METHODS

Provide an approved subcontractor who completes a response satisfactorily correcting an erosion control action as described in Form 1675. Each erosion control action may include one or more of the above work items.

1675-3 MEASUREMENT AND PAYMENT

Response for Erosion Control will be measured by counting the actual number of times the subcontractor moves onto the project, including borrow and waste sites and satisfactorily completes an erosion control action described in Form 1675.

Payment will be made under:

Pay Item	**Pay Unit**
Response for Erosion Control	Each

DRAFT for Performance Based Version

Draft Form 1675
06/02/05
Attachment No. 1

Inspector's Daily Report for Environmental/Erosion Control Contractor (EECC)

Project: _____ Day & Date: _____
Prime: _____
Sub: _____ Sub Foreman: _____

Area Description: _____

Pay Item	Standard/Metric Unit		Quantity	Comments
Temporary Silt Fence	LF	M		
Temporary Mulching	AC	HA		
Seed-Temporary Seeding	LB	KG		
Fertilizer-Temporary Seeding	TN	MTN		
Synthetic Roving	SY	M^2		
Matting for Erosion Control	SY	M^2		
Coir Fiber Mat	SY	M^2		
Perm. Soil Reinforcement Mat	SY	M^2		
Seeding and Mulching	AC	HA		
Mowing	AC	HA		
Seed-Repair Seeding	LB	KG		
Fertilizer-Repair Seeding	TN	MTN		
Seed for Supplemental Seeding	LB	KG		
Fertilizer Topdressing	TN	MTN		
Spec Sdg under Guiderail & Guardrail	AC	HA		
Specialized Hand Mowing	HR	HR		
Response for Erosion Control	EA	EA		
GECI-Safety Fence	LF	M		

Additional Work: (repairs/re-installations that will not be paid for by NCDOT)
Authorized by Prime Contractor Rep: _____ Purchase Order No.: _____

Description/Location: _____
Pay Item: _____ Quantity: _____

NCDOT Representative: _____
Prime Representative: _____

Use reverse for area descriptions/sketches as needed.

Attachment No. 2

D R A F T

EROSION & SEDIMENT CONTROL/STORMWATER CERTIFICATION 04-13-05

GENERAL

Schedule and conduct construction activities in a manner that will minimize soil erosion and the resulting sedimentation and turbidity of surface waters. Comply with the requirements herein regardless of whether or not an NPDES permit for the work is required.

Establish a chain of responsibility for operations and subcontractor's operations to ensure that the *Erosion and Sediment Control/Stormwater Pollution Prevention Plan* is implemented and maintained over the life of the contract.

Certified Supervisor –Provide a certified Erosion & Sediment Control Stormwater Supervisor to direct the Contractor and subcontractor(s) operations, insure compliance with Federal, State and Local ordinances and regulations, and to direct the Quality Control Program. **Certified supervisors required on all projects let after December 31, 2005.**

Certified Foreman – Provide certified, trained foremen for each construction operation that increases the potential for soil erosion or the possible sedimentation and turbidity of surface waters. **Certified foremen required on all projects let after December 31, 2005**.

Certified Installer – Provide a certified installer to install or direct the installation for erosion or sediment/stormwater control practices. **Certified installers required on all projects let after December 31, 2006.**

OBTAINING CERTIFICATION

Certified Supervisor – Obtain certification by completing a one day Erosion & Sediment/Stormwater Control Site Management Level II training class and passing the required exam provided by North Carolina State University, Department of Biological and Agricultural Engineering. The certification is valid for three years.

Certified Foreman – Obtain certification by completing the one-day Erosion & Sediment Control Stormwater Site Management Level II training course and passing the required exam provided by North Carolina State University, Department of Biological and Agricultural Engineering. The certification is valid for three years.

Certified Installer – Obtain certification by completing a one day Erosion & Sediment Control Stormwater Inspector/Installer Level I training course and passing the required exam provided by North Carolina State University, Department of Biological and Agricultural Engineering. The certification is valid for three years.

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ROLES AND RESPONSIBILITIES

Certified Erosion & Sediment Control Stormwater Supervisor

1. Make the Supervisor responsible for ensuring erosion and sediment/stormwater control is adequately implemented and maintained on the project and conducting the quality control program.

   Have the Certified Supervisor on the project within 24 hours from initial disturbance of erosion to the project's final acceptance when questions or concerns arise with Erosion and Sedimentation Control/Stormwater issues.

   Perform the following duties:

   Coordinate and schedule the work of subcontractors so erosion and sediment/stormwater control measures are fully executed for each operation and in a timely manner over the duration of the contract.

   Oversee the work of subcontractors so that appropriate erosion and sediment/stormwater control preventive measures are conformed to at each stage of the work.

   Prepare the required weekly erosion control punchlist and present it to the Engineer.

   Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection log and other related issues.

   Implement the erosion and sediment/stormwater control site plans requested.

   Provide for erosion and sediment/stormwater control methods for Contractor's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.

   Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Contractor in jurisdictional areas.

   Conduct all erosion and sediment/stormwater control work in a timely and workmanlike manner.

   Fully install erosion and sediment/stormwater control work prior to suspension of the work.

   Coordinate with NCDOT, Federal, State and Local Regulatory agencies on resolution of erosion and sediment/stormwater control issues due to the Contractor's operations.

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Ensure that proper cleanup occurs from vehicle tracking on paved surfaces and/or any location where sediment leaves the Right-of-Way.

Have available an easily understandable updated set of EC plans for review by the project personnel, REU, Field Ops or Regulatory Agencies.

2. Quality Control Program

Maintain a quality control program to control erosion, prevent sedimentation and follow provisions of permits. The quality control program shall:

Follow permit requirements related to the Contractors' and subcontractor(s)' construction activities.

Ensure that all operators and/or subcontractor(s) on site have the proper erosion and sediment/stormwater control certification.

Notify the Engineer when the required certified erosion and sediment/stormwater control personnel are not available on the job site when needed.

Conduct the inspections required by the NPDES permit.

Maintain the NPDES inspection log.

Take corrective actions in the proper timeframe as required by the NPDES permit for problem areas identified during the NPDES inspections.

Incorporate erosion control into the work in a timely manner and stabilize disturbed areas with mulch/seed or vegetative cover on a section-by-section basis.

Maintain temporary erosion and sediment control devices.

Remove temporary erosion or sediment control devices when they are no longer necessary as agreed upon by the Engineer.

The Contractor's quality control and inspection procedures shall be subject to review by the Engineer. Maintain NPDES inspection records at the project site. Make NPDES inspection records available at all times for verification by the Engineer.

Certified Foreman

Have at least one certified foreman onsite for each type of work listed herein during the respective construction activities to control erosion, prevent sedimentation and follow permit provisions:

Foreman in charge of grading activities

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Foreman in charge of bridge or culvert construction over jurisdictional areas

Foreman in charge of utility activities

Certified Installers

Provide at least one certified installer for each of the following erosion or sediment/stormwater control operations:

Seeding and Mulching

Temporary Seeding

Temporary Mulching

Sodding

Silt fence or other perimeter erosion/sediment control device installations

Erosion control blanket installation

Hydraulic tackifier installation

Turbidity curtain installation

Rock ditch check/sediment dam installation

Ditch liner/matting installation

Inlet protection

Riprap placement

Stormwater BMP installations (such as but not limited to level spreaders, retention/detention devices)

Pipe installations within jurisdictional areas

PRECONSTRUCTION MEETING

Furnish the names of *the Certified Erosion & Sediment Control Stormwater Supervisor, Certified Foremen,* and notify the Engineer of changes in certified personnel over the life of the contract within 2 days of change.

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REVOCATION OF CERTIFICATION

Upon recommendation of the NCDOT Director of Construction to the Certification Board, certification for Supervisor, Certified Foremen, and Certified Installers may be revoked with the issuance of a Continuing Immediate Corrective Action (Continuing ICA), Notice of Violation, or Cease and Desist Order for erosion and sediment control/stormwater related issues. **Details for appeal procedures, etc. to be posted soon (TMSherrod)**

If the Contractor fails to provide a *certified Erosion & Sediment Control Stormwater Supervisor* for the project, the Engineer shall issue a written order to the Contractor. The Contractor shall respond within 24 hours and provide the required Erosion & Sediment Control Stormwater Supervisor or be subject to a $1000 per calendar day penalty and/or removal from bid list for a specified time.

If the Contractor or subcontractor(s) fail to provide the appropriate *Certified Trained Foremen*, the Erosion & Sediment Control Stormwater Supervisor shall notify the Engineer immediately. If the Engineer determines that one or more required certified foremen have not been provided, the Contractor shall respond to the Engineer's notification within 2 days with the appropriately certified person(s) or provisionally certified person(s) or be subject to a $500.00 per required foreman per calendar day penalty and/or removal from bid list for a specified time.

If the Contractor or subcontractor(s) fails to provide the required *Certified Installer*(s), the Erosion & Sediment Control Stormwater Supervisor shall notify the Engineer. If either the Erosion & Sediment Control Stormwater Supervisor or the Engineer determines that one or more required certified installers have not been provided, the Contractor shall respond to the Engineer's notification within 2 days with the appropriately certified person(s) or provisionally certified person(s) or be subject to a $500.00 per required installer per calendar day penalty and/or removal from bid list for a specified time

MEASUREMENT AND PAYMENT

Certified Erosion & Sediment Control Stormwater Supervisor is incidental to the project for which no direct compensation will be made.

Certified foremen are incidental to the project for which no direct compensation will be made.

Certified installers are incidental to the project for which no direct compensation will be made.

SP1GXXX

Attachment No. 2

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Erosion and Sediment Control/Stormwater Certification Personnel Chart

May 11, 2005

TIP ROADWAY PROJECT	
NCDOT/CEI Personnel	**Contract Personnel**
1 Level II	**5 Level II's**
▪ oversee project	Project Supervisor – Level II
2 Level I's	▪ oversee project
▪ weekly EC punchlist	Grading Foreman – Level II
▪ seeding and mulching	▪ weekly EC punchlist
▪ EC installation and maintenance	Bridge Subcontractor – Level II
	Culvert Subcontractor – Level II
	Utility Subcontractor – Level II
	4 Level 1's
	Silt Fence Subcontractor – Level I
	Seeding Subcontractor – Level I
	Pipe crew (prime or sub) – Level I (grading foreman might oversee)
	EC Subcontractor – Level I (prime to supply if they install EC devices)

TIP BRIDGE PROJECT	
NCDOT/CEI Personnel	**Contract Personnel**
1 Level II	**3 Level II's**
▪ oversee project	Project Supervisor – Level II
▪ weekly EC punchlist	Bridge Foremen – Level II
▪ seeding and mulching	▪ weekly EC punchlist
▪ EC installation and maintenance	▪ EC installation and maintenance
	Utility Subcontractor - Level II
	1 Level I
	Seeding Subcontractor – Level I

Small Urban TIP, POC, Resurfacing	
NCDOT/CEI Personnel	**Contract Personnel**
1 Level II	**3 Level II's**
▪ oversee project	Project Supervisor – Level II
▪ weekly EC punchlist	Bridge Foremen – Level II
▪ seeding and mulching	▪ weekly EC punchlist
▪ EC installation and maintenance	▪ EC installation and maintenance
	Utility Subcontractor - Level II
	1 Level I
	Seeding Subcontractor – Level I (prime to supply if they perform seeding and mulching

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Attachment No. 3

Procedure for Monitoring Borrow Pit Discharge

During the Environmental Assessment the contractor shall have defined the point at which the discharge effluent enters into jurisdictional waters and the appropriate sampling locations. Sampling locations shall include points upstream and downstream from the point at which the effluent enters the jurisdictional waters. Upstream sampling location shall be located so that it is not influenced by "backwater" conditions. Downstream sampling location shall be located at a point where complete mixing of the effluent and receiving water has occurred.

Water pumped from borrow pit sites into jurisdictional waters shall not cause the jurisdictional waters to exceed 50 NTU's in streams not designated as trout waters and 10 NTU's in streams, lakes or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity will not exceed 25 NTU's; if the turbidity exceeds these levels due to natural background conditions, the existing turbidity level cannot be increased.

When the jurisdictional water has natural background conditions exceeding the numerical standards of 50, 25 or 10 as appropriate, water from dewatering activities may be discharged into jurisdictional waters up to the background conditions of the jurisdictional water. In order to determine the natural background condition of the jurisdictional water the Contractor shall take a daily, upstream turbidity measurement prior to discharging effluent into the jurisdictional water. In the case where water from the dewatering activities will be introduced into a dry ditch or intermittent stream, the Division of Water Quality staff may be requested to make a site-specific determination of the background conditions or a determination that other provisions of the state's standards apply at that site. In order to minimize the potential for short-term water quality standard violations, wherever practical, effluent pipes or ditches should be extended out of the "dry" areas of a stream into areas, which contain water under normal circumstances.

In the case where special controls are needed to protect a rare or unique resource, the special controls and any special numerical standard conditions will be included as part of the 401 Water Quality Certification, 401 approval letters, Isolated Wetland Permit and Riparian Buffer Authorizations.

Once the natural background condition is determined and discharging begins, the contractor shall:

1. ensure that the discharge does not exceed the applicable water quality standards,
2. measure and record the turbidity at the defined sampling locations 30 minutes after startup and then at least twice daily,
3. establish sampling intervals spaced evenly throughout the workday,
4. provide for dewatering to be suspended if NTU values in the receiving jurisdictional waters exceed those outlined above, and
5. provide that dewatering may resume once it is shown that the NTU values are in compliance with the water quality standards.

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The Department will perform independent turbidity tests on a random basis. These results will be maintained in a log within the project records. Should the Department's test results exceed those of the Contractor's, an immediate test shall be jointly performed with the results superceding the previous test results.

The contractor shall use the DOT Turbidity Reduction Matrix to plan, design, construct, and maintain BMPs to address water quality standards. Methods 1-5 shall be options for turbidity reduction for all borrow pits and are to be used when needed to meet the stream turbidity standards. Methods 6-10 are options that may be needed for protection of rare or unique resources, or where sensitive environmental conditions which exist at the site have led to additional requirements being placed in the Division of Water Quality's certification or approval documents. The contractor may utilize cation exchange capacity (CEC) values from proposed site borings to plan and bid for turbidity reduction options. CEC values exceeding 15 milliequivalents per 100 grams of soil may indicate a high potential for turbidity and should be avoided when dewatering into surface water is proposed.

Attachment No. 4

Department can provide:

.gpk
X-sections
Excel spreadsheets of earthwork, drainage, and guardrail
Electronic plan file (they would be hard to organize on their side)
Electronic profiles (again, hard for them to organize)